

WHAT IS CLAIMED IS:

1. A method for producing a gas barrier laminate film comprising the step of applying a mixture containing at least one kind of alkoxysilane, an acid catalyst and a hydrophilic resin to a polymer base film to form a coating layer, wherein the acid catalyst is contained in the mixture in an amount of 0.3 to 5.0 molar equivalents with respect to 1 molar equivalent of the alkoxysilane.
2. The method for producing a gas barrier laminate film according to claim 1, wherein the hydrophilic resin is a polyvinyl alcohol resin.
3. The method for producing a gas barrier laminate film according to claim 1, wherein the hydrophilic resin is contained in the mixture in an amount of 0.1 time or more of the weight of  $\text{SiO}_2$  in the same molar number as the alkoxysilane.
4. The method for producing a gas barrier laminate film according to claim 1, wherein the acid catalyst is hydrochloric acid, nitric acid, formic acid, acetic acid or oxalic acid.
5. The method for producing a gas barrier laminate film according to claim 1, wherein the polymer base film contains an inorganic layered compound.
6. The method for producing a gas barrier laminate film according to claim 5, wherein the inorganic layered compound is fluorine tetrasilicon mica.
7. The method for producing a gas barrier laminate

film according to claim 1, wherein the polymer base film is prepared from a resin kneaded with an inorganic layered compound.

8. The method for producing a gas barrier laminate film according to claim 1, wherein the polymer base film has a light transmission of 80% or more.

9. The method for producing a gas barrier laminate film according to claim 1, wherein the polymer base film has a thickness of 5 to 500  $\mu\text{m}$ .

10. The method for producing a gas barrier laminate film according to claim 1, wherein the coating layer has a thickness of 100 to 1000 nm.

11. The method for producing a gas barrier laminate film according to claim 1, wherein the acid catalyst is contained in the mixture in an amount of 0.5 to 2.5 molar equivalents with respect to 1 molar equivalent of the alkoxysilane.

12. A gas barrier laminate film, which can be obtained by the production method according to claim 1.

13. The gas barrier laminate film according to claim 12, wherein the coating layer has a silicon density of 0.65  $\text{g}/\text{cm}^3$  or more at 25°C.

14. The gas barrier laminate film according to claim 12, wherein the coating layer has a silicon density of 0.75  $\text{g}/\text{cm}^3$  or more at 25°C.

15. The gas barrier laminate film according to claim 12, wherein the coating layer contains a polysilicate.

16. The gas barrier laminate film according to claim 12, wherein the coating layer contains the hydrophilic resin in an amount of 0.23 time or more of the weight of silicon contained in the coating layer.

5 17. A substrate comprising the gas barrier laminate film according to claim 12.

18. An image display device comprising the gas barrier laminate film according to claim 12.

10 19. A liquid crystal display device comprising the gas barrier laminate film according to claim 12.

20. An organic EL device comprising the gas barrier laminate film according to claim 12.